CLAIM AMENDMENTS

Claims 1-11 (canceled).

Claim 12 (withdrawn): A device for producing gasoline, kerosene and diesel oil from waste plastic, rubber or machine oil, comprising in turn a cracker, a fixed bed, a packed tower, a fractionating tower, the top part of said fractionating tower connecting with a gasoline quencher via a tube, and said quencher connecting to a condenser, said condenser linking to a separator of oil and water, a filter and a gasoline treating column in series, said gasoline treating column being connected with a filter and a product tank in series; the middle part of said fractionating tower connecting with a condenser, a separator of oil and water, a filter and a kerosene treating column in series, and said kerosene treating column connecting a filter and a product tank in series; and the low part of said fractionating tower connecting with a condenser, a separator of oil and water, a filter, and a diesel oil treating column in series, said diesel oil treating column connecting to a filter and a product tank in series; the bottom of said fractionating tower connecting to the cracker via a tube.

Claim 13 (new): A process for producing oil product from waste materials including plastic, rubber and machine oil, comprising the steps of:

(a) mixing waste raw materials with quartz and sand in a cracker and catalytically cracking a mixture of said waste raw materials, quartz, and sand at a cracking temperature initially starting from 50°C to 480°C to accelerate a cracking process of said waste raw materials in said cracker, wherein a cracked gas is start to be produced at said cracking temperature, wherein an amount of 0.3 to 1.5% of quartz is added into said waste raw materials by a weight ratio between said quartz and said waste raw materials, wherein an amount of 0.1 to 0.5% of sand is added into said waste raw materials by a weight ratio between said sand and said waste raw materials;

(b) further catalytically cracking said cracked gas collected from said cracker in a fixed bed to obtain an oil stream;

(c) fractionating said oil stream to collect fractions of gasoline, kerosene and diesel oil at a fractionating tower; and

(d) treating fractions of gasoline, kerosene and diesel oil respectively to produce said high quality oil product in a relatively short cycle of production.

Claim 14 (new): The process, as recited in claim 13, wherein said cracking temperature is gradually increasing from 50°C to 480°C to produce said gas fraction which is collected immediately and to introduce to said fixed bed.

Claim 15 (new): The process, as recited in claim 13, wherein said cracked gas is further catalytically cracked in an one-step process that only one said fixed bed is used, wherein said cracked gas is gotten rid of impurities through a coke layer in a thickness of 20-50 cm, then successively passes through a Pall ring layer, a sorbent layer and a catalyzer layer with 5Å molecular sieves as catalyzer.

Claim 16 (new): The process, as recited in claim 14, wherein said cracked gas is further catalytically cracked in an one-step process that only one said fixed bed is used, wherein said cracked gas is gotten rid of impurities through a coke layer in a thickness of 20-50 cm, then successively passes through a Pall ring layer, a sorbent layer and a catalyzer layer with 5Å molecular sieves as catalyzer.

Claim 17 (new): The process, as recited in claim 13, wherein the step (c) further comprises a step of frequently adding a mixture of cobaltic phthalocyanin sulfonate, NaOH, and H_2O_2 into said oil stream every 5 to 8 hours, wherein said mixture contains 200ppm of water solution of cobaltic phthalocyanin sulfonate by dissolving cobaltic phthalocyanin sulfonate in water, 1.5 Kg of 10% NaOH, and 3% of 10% H_2O_2 in responsive to a volume of 10% NaOH.

Claim 18 (new): The process, as recited in claim 16, wherein the step (c) further comprises a step of frequently adding a mixture of cobaltic phthalocyanin sulfonate, NaOH, and H_2O_2 into said oil stream every 5 to 8 hours, wherein said mixture contains 200ppm of water solution of cobaltic phthalocyanin sulfonate by dissolving cobaltic phthalocyanin sulfonate in water, 1.5 Kg of 10% NaOH, and 3% of 10% H_2O_2 in responsive to a volume of 10% NaOH.

Claim 19 (new): The process as recited in claim 13 wherein, in the step (c), said oil stream is fractionated at different temperatures within said fractionating tower by:

fractionating said gasoline at a top part of said fractionating tower with a temperature between 195°C to 198°C;

fractionating said kerosene at a middle part of said fractionating tower with a temperature between 200°C to 230°C; and

fractionating said diesel at a bottom part of said fractionating tower with a temperature between 300°C to 360°C.

Claim 20 (new): The process as recited in claim 18 wherein, in the step (c), said oil stream is fractionated at different temperatures within said fractionating tower by:

fractionating said gasoline at a top part of said fractionating tower with a temperature between 195°C to 198°C;

fractionating said kerosene at a middle part of said fractionating tower with a temperature between 200°C to 230°C; and

fractionating said diesel at a bottom part of said fractionating tower with a temperature between 300°C to 360°C.

Claim 21 (new): The process, as recited in claim 13, wherein said fraction of gasoline is treated by the steps of:

condensing said fraction of gasoline at a temperature between 160°C to 180°C to form a liquid state and returning said gasoline in liquid state back to said fractionating tower;

condensing said fraction of gasoline again in said fractionating tower until said temperature of said gasoline reduces to a range between 30°C to 60°C, followed by a sedimentation to separate oil and water, wherein said oil is then filtered; and

treating said oil at a temperature in a range between 30°C to 50°C in an existence of active kaolin in an amount of 1 to 5 % based on a weight of said gasoline.

Claim 22 (new): The process, as recited in claim 20, wherein said fraction of gasoline is treated by the steps of:

condensing said fraction of gasoline at a temperature between 160°C to 180°C to form a liquid state and returning said gasoline in liquid state back to said fractionating tower;

condensing said fraction of gasoline again in said fractionating tower until said temperature of said gasoline reduces to a range between 30°C to 60°C, followed by a sedimentation to separate oil and water, wherein said oil is then filtered; and

treating said oil at a temperature in a range between 30°C to 50°C in an existence of active kaolin in an amount of 1 to 5 % based on a weight of said gasoline.

Claim 23 (new): The process, as recited in claim 13, wherein said fraction of diesel oil is treated by the steps of:

adding 98% H_2SO_4 in an amount of 2 to 5% based on the weight of said fraction of diesel oil to proceed an acid washing;

adding 96% NaOH in an amount of 1 to 3% based on the weight of said fraction of diesel oil to proceed an alkali washing; and

adding a cetane additive in an amount of 1 to 5% base on the weight of said fraction of diesel oil.

Claim 24 (new): The process, as recited in claim 22, wherein said fraction of diesel oil is treated by the steps of:

adding 98% H_2SO_4 in an amount of 2 to 5% based on the weight of said fraction of diesel oil to proceed an acid washing;

adding 96% NaOH in an amount of 1 to 3% based on the weight of said fraction of diesel oil to proceed an alkali washing; and

adding a cetane additive in an amount of 1 to 5% base on the weight of said fraction of diesel oil.

Claim 25 (new): The process as recited in claim 13 wherein, in the step (a), said cracking temperature is set from 60°C to 460°C for cracking waste plastics as said waste raw materials.

Claim 26 (new): The process as recited in claim 24 wherein, in the step (a), said cracking temperature is set from 60°C to 460°C for cracking waste plastics as said waste raw materials.

Claim 27 (new): The process as recited in claim 13 wherein, in the step (a), said cracking temperature is set from 80°C to 480°C for cracking waste rubbers as said waste raw materials.

Claim 28 (new): The process as recited in claim 24 wherein, in the step (a), said cracking temperature is set from 80°C to 480°C for cracking waste rubbers as said waste raw materials.

Claim 29 (new): The process as recited in claim 13 wherein, in the step (a), said cracking temperature is set from 50°C to 380°C for cracking waste machine oil as said waste raw materials.

Claim 30 (new): The process as recited in claim 24 wherein, in the step (a), said cracking temperature is set from 50°C to 380°C for cracking waste machine oil as said waste raw materials.